IN THE CLAIMS

Please amend the claims as follows:

Claims 1-2 (Canceled).

Claim 3 (Previously Presented): The mechanism simulation method according to claim 17, further comprising:

inputting, by a state transition model, a control signal from an external mechanism control software system.

Claim 4 (Previously Presented): The mechanism simulation method according to claim 17, wherein the mechanism elements include a rotation angle or displacement of an actuator.

Claims 5-7 (Canceled).

Claim 8 (Previously Presented): The mechanism simulation method according to claim 17, further comprising storing the generated table to a file.

Claim 9 (Currently Amended): A computer readable storage medium storing a computer program configured to cause a computer to execute a method for simulating a mechanism, said method comprising:

reading data representing a plurality of variables of a continuous system equation of a hybrid model described in a hybrid model programming language having a class definition functionality based on an object-oriented approach;

reading data ~~representing a plurality of mechanism elements~~ of a three-dimensional mechanism model representing a geometric constraint relationship between a plurality of mechanism elements included in said mechanism;

extracting, from the data representing the variables, a plurality of selective variables each of which enables to be associated with any one of the mechanism elements;

extracting, from the data representing the mechanism elements, a plurality of selective mechanism elements each of which enables to be associated with any one of the variables;

receiving a selection which is made by a user and is indicative of a combination of one of the plurality of selective variables and one of the plurality of selective mechanism elements, to generate a table that represents a correspondence between the variables and the mechanism elements based on the selection, wherein the one of the plurality of selective variables in the combination is selected by selecting a class of predefined hybrid model to which the selective variables belong, and selecting a member variable in the class;

calculating a value of one of the variables of the continuous system equation by a first simulator that executes the hybrid simulation in which a behavior of the mechanism is simulated;

identifying a mechanism element corresponding to a variable having the calculated value, referring to the table;

transmitting, to a second simulator, information specifying the identified mechanism element and the calculated value of the variable; and

executing a kinematic simulation by ~~the second simulator~~ calculating a transformation matrix for each of said plurality of mechanism elements based on the ~~information in which a geometrical operation of the mechanism is simulated~~ data of the three-dimensional model.

Claim 10 (Canceled).

Claim 11 (Previously Presented): The method according to claim 9, further comprising:

inputting, from a state transition model, a control signal from an external mechanism control software system.

Claim 12 (Previously Presented): The method according to claim 9, wherein the mechanism elements include a rotation angle or displacement of an actuator.

Claims 13-15 (Canceled).

Claim 16 (Previously Presented): The computer readable medium according to claim 9, further comprising instructing the computer to store the generated table to a file.

Claim 17 (Currently Amended): A method of simulating a mechanism, comprising:

reading data representing a plurality of variables of a continuous system equation of a hybrid model described in a hybrid model programming language having a class definition functionality based on an object-oriented approach;

reading data ~~representing a plurality of mechanism elements~~ of a three-dimensional mechanism model representing a geometric constraint relationship between a plurality of mechanism elements included in said mechanism;

extracting, from the data representing the variables, a plurality of selective variables each of which enables to be associated with any one of the mechanism elements;

extracting, from the data representing the mechanism elements, a plurality of selective mechanism elements each of which enables to be associated with any one of the variables;

receiving a selection which is made by a user and is indicative of a combination of one of the plurality of selective variables and one of the plurality of selective mechanism elements, to generate a table that represents a correspondence between the variables and the mechanism elements based on the selection, wherein the one of the plurality of selective variables in the combination is selected by selecting a class of predefined hybrid model to which the selective variables belong, and selecting a member variable in the class;

calculating a value of one of the variables of the continuous system equation by a first simulator that executes the hybrid simulation in which a behavior of the mechanism is simulated;

identifying a mechanism element corresponding to a variable having the calculated value, referring to the table;

transmitting, to a second simulator, information specifying the identified mechanism element and the calculated value of the variable; and

executing a kinematic simulation by ~~the second simulator~~ calculating a transformation matrix for each of said plurality of mechanism elements based on the ~~information in which a geometrical operation of the mechanism is simulated~~ data of the three-dimensional model.

Claim 18 (Canceled).